THE EURASIA CANAL PROJECT IN THE CONTEXT OF THE CHINA’S BELT AND ROAD INITIATIVE

ARASHA V. BOLAEV* *

* Russian Academy of Natural Sciences, Moscow, Russian Federation; Candidate of Economic Sciences (PhD in Economics), Development Director of the Russian Academy of Natural Sciences, Acting Vice-President of the Russian Academy of Natural Sciences, Russian Federation; 119002, Moscow, Sivtsev Vrazhek Lane, 29/16; ORCID: 0000-0003-0795-7115

Abstract
In the conditions of high turbulence in international relations and the aggravation of the political situation, the search for new logistics routes and transport corridors for the development of cross-country collaboration is relevant. From this point of view, the Eurasia Canal project is important due to its potential to expand logistics routes, as well as reduce the burdensome effects of sanctions restrictions. The project is relevant in the context of China’s Belt and Road strategic initiative. The article discusses the prospects of the project, its main technical, economic and investment indicators, identifies the problems faced by the project participants.

Keywords: Eurasia Canal, Belt and Road Initiative, Water Transport, Caspian Region, Russia, China, Kazakhstan

1. INTRODUCTION

The recent international relations reshaping has led to dramatic changes in the global logistics landscape: the logistics infrastructure foundations are being rebuilt around the world; new transport corridors are being integrated into international collaboration. The implementation of these projects requires closer cooperation between countries the priority strategy of which includes the economic interests of market actors. To build a new logistics route, a global geologistics project, the One Belt, One Road, was initiated by China. This initiative’s scope provides a lot of opportunities for the Eurasia Canal construction and construction of other transport corridors connecting the European countries and China in the Caspian Sea basin as well.

Many countries are interested in the Eurasia Canal construction, including Russia, Kazakhstan and Central Asia countries, China. It is Kazakhstan that according to some relative estimations benefits most from the project implementation, since the project will allow the country to increase its internal cargo traffic and become a hub for transportation of goods between China and the EU countries. For Russia, this channel is monumentally important as well, since it allows bypassing some sanction limitations, and enhance strategic partnership with China, Kazakhstan, Turkey, and other countries.

In this regard, the research interest lies in identifying the key parameters of the Eurasia Canal construction in the context of the One Belt, One Road Initiative.

The aim of the article is to analyse the advantages and disadvantages of the Eurasia Canal construction project in the context of the One Belt, One Road initiative.

To achieve the goal, the article uses methods of systematic, analytical, historical review, literature analysis, structural analysis, absolute and relative differences and others.

1. THE HISTORY OF THE PROJECT AIMED TO CONSTRUCT A CANAL BETWEEN THE CASPIAN SEA AND THE AZOV-BLACK SEA BASIN

The idea of a project to build a transport connection between the Caspian Sea and the Azov-Black Sea basin originated in pre-revolutionary Russia. However, its implementation is associated with the 1930-es Manych Ship Canal construction. The initiative was postponed during the World War II. But due to the economic tie’s expansion in the peace time, new Caspian-Black Sea logistics routes had become in demand. In this regard, by the end of the last century, a significant increase in cargo flows passing between the Caspian basin and the Mediterranean countries urged an increase in capacity between transport systems connecting these regions. As a result, the project was resumed in the 2000-es.
Later in 2009-2010, the Eurasian Bank for Development and Reconstruction held the research on the possibility to build direct transportation between the Caspian Sea and the Black Sea basin, namely the Eurasia Canal. However, the research results were not made public. [1].

Later studies carried out by Russian, Chinese and Kazakhstani scientists under the supervision of academicians Oleg Kuznetsov, Nurtai Abykaev, Nuraly Bekturganov (2015-2018, the author of the current article was the head of the project research and development), made it possible to publicly scientifically justify the feasibility of the Eurasia Canal building [2].

The project is still being developed for two essential reasons - its implementation is criticized by some critics, which argue to its ambiguous approach to environmental acceptability. Noteworthy is the fact that it was at the end of 2010 when the specialists from the Southern Scientific Center of the Russian Academy of Sciences (SSC RAS) reasonably refuted the criticisms. Their key argument was that the Eurasian Canal project developers considered all environmentalists’ concerns (even more scrupulously compared to other similar project initiatives). [2] For example, it was suggested that the canal should be fed with fresh water from the area where the Volga flows into the Caspian Sea [3].

Another version suggested by the canal construction opponents implies a likely low viability of the cargo base in Kazakhstan, China, and the southern regions of Russia. In response, scientists supporting the Eurasian Canal construction rated the east-west maximum capacity quite highly, which will definitely recoup the investment as well as allow building the routes required for shipping within the canal [6].

Thus, the project on the construction of a canal between the Caspian Sea and the Black Sea basin has been developing for many years. Despite of the project freezing, it has become highly relevant in the last few years. The prospects for the transport corridor construction outweigh the shortcomings indicated by its critics, which determines the potential and possibility to implement the transport corridor in the near future.

2. THE MAIN WATER TRANSPORT AND ECONOMIC CHARACTERISTICS OF THE PROPOSED PROJECT ON THE EURASIA CANAL CONSTRUCTION

Numerous scientific studies on the Eurasia Canal construction feasibility have proven its potential and effectiveness (e.g., developing logistics infrastructure in the Russian Federation, Kazakhstan, China and other countries will solve the current challenges). It is proved by the in-depth study held by the Chinese company Sinohydro (now PowerChina) to analyse the Eurasia Canal construction. Sinohydro experts came to the conclusion that the canal could become a rival to the Suez Canal [2].

The Eurasia Canal will likely to become an alternative for Chinese cargo flows from Europe to China and back, which will enhance commodity turnover between European countries and China. The regional geopolitics promotes freight route safety which increases logistics efficiency and reduces transportation costs. The synergy of these economic trends is economically beneficial for all countries (including Russia) interested in the canal construction. For example, according to the Chinese researchers, launching the Eurasia Canal will additionally increase export cargo traffic on the territory of two countries only, Russia and Kazakhstan in particular, by 20-25 million tons annually till 2030 and by 34-44 million tons annually till 2050.

The multiplier effect of the Eurasia Canal launching and increases in freight traffic will impact:

- the growth of national income from the canal traffic;
- increase in the transit traffic;
- the service industry development, as well as logistics and industrial infrastructure.

This is for a reason that the macroeconomic effect of the Eurasia Canal launching is amounting to a large infrastructure project that contributes to a foreign trade increase and development of the economic ties of a country. Regarding Russia, the canal building will allow to supply fresh water to the southern arid regions of the country.

The investment attractiveness of the Eurasia Canal project was assessed with regards to two alternatives for its implementation (Table 1). It should be noted that the Eurasia Canal parameters in the presented Alternative 1 make it possible for Russia to use the SeaWayMax vessels in transportation (SeaWayMax tonnage ranges between 26-28.5 thousand tons, the vessel has 8.08 m draft, is 230 m in length, 24 m in
width). At the same time, the vessel design parameters are also suitable for passing through the Kerch Strait area.

The 8.1 m vessel draft complies to the international standards and is quite acceptable for shipping through the Eurasia Canal with a navigable depth of 9.3 meters (corresponds to the presented Alternative 2). But the absurd arguments presented by the Eurasia Canal opponents indicate the maximum SeaWay Max vessel tonnage not to exceed the 7.15 m vessel draft (with an indicated minimal navigable depth of 9.3 meters).

### Table 1. Technical and economic project indicators (financial indicators are stated in the prices and conditions valid in 2016)

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Alternative 1</th>
<th>Alternative 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vessel draft, meters</td>
<td>5.0</td>
<td>7.15 (8.1)</td>
</tr>
<tr>
<td>Canal width, meters</td>
<td>48</td>
<td>63</td>
</tr>
<tr>
<td>Lock length, meters</td>
<td>350</td>
<td>400</td>
</tr>
<tr>
<td>Lock width, meters</td>
<td>20</td>
<td>30</td>
</tr>
<tr>
<td>Maximum head of locks, meters</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>Construction costs, billion rubles</td>
<td>588,77</td>
<td>1454,8</td>
</tr>
<tr>
<td>Estimation of operating costs per year, billion rubles</td>
<td>6,9</td>
<td>19,03</td>
</tr>
<tr>
<td>Discounted ROI up to 60 years of canal operation, %</td>
<td>2,4</td>
<td>1,6</td>
</tr>
<tr>
<td>Discounted ROI after 60 years of canal operation, %</td>
<td>3,0</td>
<td>1,9</td>
</tr>
<tr>
<td>Internal project payback, %</td>
<td>8,9</td>
<td>3,9</td>
</tr>
<tr>
<td>60-year ROI on construction completion, %</td>
<td>9,38</td>
<td>5,41</td>
</tr>
</tbody>
</table>

Source: [2]

As is seen, whatever the alternative is chosen for project implementation, the return on investment will be positive, which is a positive factor for large long-term projects.

In both alternatives, ROI has a positive value, which also proves the project feasibility and the possibility to gain profits from its implementation.

In this context, it should be noted that the potential profitability of the Eurasia Canal project is more determined by the canal cargo traffic. The current export cargo base capacity represented by the enterprises operating in the south of Russia and Kazakhstan, excluding oil and oil product producers, makes it possible to determine the cargo flow for the Eurasia Canal amounting to about 45 million tons per year. The Chinese-European cargo traffic passing the Eurasia Canal will undoubtedly increase by 2050, as was noted earlier, and according to the forecasts of the Chinese state corporation Sinohydro will amount to 31-51 million tons [6]. An additional factor is the cargo flows associated with the transportation of oil and oil products that could be transported through the Eurasia Canal. According to the estimates of the association of enterprises led by JSC Gidroproekt, oil and oil product transportation is predicted to amount to roughly 34-56 million tons by 2030 [2].

Summing up the arguments given above, the canal construction is clearly justified and can deliver benefits to the member countries. In fact, the canal can become the largest project of real interaction between Russia, China and Kazakhstan, as well as other Eurasian Economic Union countries within the framework of the One Belt and One Road strategy initiated by the People's Republic of China.

Large Kazakhstan businesses are the most interested parties in the project implementation. Since they benefit from the project implementation, they actively support the construction of the Eurasia Canal. In the Russian Federation, the Kalmykia Republic, Stavropol Territory, Rostov Region are the regions which are the most interested in the canal construction. These regions will be able to increase the revenues of regional and local budgets, improve the regional social infrastructure, and increase funding for projects on social concerns.

An additional argument in the interests of Russia is that in the context of sanctions pressure on the country,
the canal is considered as an important logistical source for shipping cargos to partner countries. As a result, it will develop a trend mitigating sanctions effect due to building a new independent logistics infrastructure. To compare, it should be noted that there are other waterways that could be implemented. One of the alternatives is the Volga-Don 2 canal construction, within the framework of which the canal through the Don and Volga rivers. However, Volga-Don 2 has less potential for water cargo transportation, since it is not possible to use large vessels on natural river routes, on the Don River in particular. Moreover, the Eurasia Canal has a transport connection length of about 750 km, while the route waterway length through Volga-Don 2 tends to 1300 km. This almost halves the cargo transportation duration and costs, which also proves high efficiency of the Eurasia Canal.

Regarding economic benefits for the Russian Federation, the Eurasia Canal is more preferable than the Volga-Don 2 canal due to an array of factors, the main of which are:

- the route length;
- the need to import runoff flows to improve the canal water supply;
- environmental aspects.

The Eurasia Canal is a promising project to be constructed, since it solves numerous problems and issues that several countries have. In addition to overall economic advantages, it provides a possibility for Russia to bypass current geopolitical difficulties and effectively solve the logistics infrastructure challenges.

To develop the logistics infrastructure, the Eurasia Canal implementation project will deliver:

- innovations in the offshore infrastructure construction;
- building mooring walls in all canal communication areas;
- using large container and transport terminals

A multiplicative impact will raise a need to build oil refining and construction material facilities near the canal, establish customs and border services, transshipment warehouses and other elements of modern logistics centers. This will attract multibillion-dollar funds to the regional and national budgets.

Building a new logistics infrastructure will be accompanied with the construction of ports and terminals. This creates a large number of jobs, which could solve local unemployment issues. As stated in analytical reviews, the Eurasia Canal launch will lead to the 200 thousand new jobs in the industrial and service areas in Russia and Kazakhstan. This will create an additional annual nominal GDP of about $5 billion and GDP at PPP of about 12.5 billion US dollars in the terms of Russian economy in prices of 2022. The annual macroeconomic effect of the Eurasia Canal construction will be quite comparable to the entire project implementation costs.

3. ECONOMIC SIGNIFICANCE AND SOME INVESTMENT INDICATORS OF THE PROJECT ON THE EURASIA CANAL CONSTRUCTION

The economic significance of the Eurasia Canal construction project is seen in an increase in a number of the most important indicators, the constituents of which is shown in Figure 1.

- a significant increase in industrial production and exports in the Southern part of Russia, Kazakhstan and other Caspian countries, in Northwest and Central China;
- introducing a large number of new jobs in the material production and the service sector;
- an increase in tens of millions of tons of additional transit cargo flow from China to the EU countries via Russia and Kazakhstan annually, or billions of US dollars in revenue from the freight services.

Figure 1. Criteria for Economic Significance of the Eurasia Canal Construction Project
It should be noted that the increase in industrial exports will be possible partly due to the decreasing of exporting transport costs because of using the Canal. By the way, today, large carbon volumes are exported from Kazakhstan and Russia through pipelines and can be processed in the Caspian region, which will be facilitated by the canal construction completion. [8].

As is forecasted, the bulk of cargo traffic between China and the EU countries will be transported from east to west, while the share of goods transit from the European Union will also increase and will likely to reach roughly one third of the total cargo volume. The Eurasian Canal has a significant potential to service the trade between China and the EU countries and become a significant positive factor of development of the western and central regions of the PRC. According to the Sinohydro corporation forecast, the Eurasia Canal transport corridors will pass 23-38 million tons of the Chinese-European cargo traffic volumes by 2030 and 31-51 million tons of cargo by 2050, while the main source of cargo traffic reflecting the trade between China and the EU countries through the Eurasia shipping canal will be cargo previously transported by sea through the Suez Canal or around Africa. [6].

The increase in transit cargo can be ensured not only by hydrocarbons, but also by grain, fertilizers, other crop products that will move to the Caspian Sea and the Mediterranean basin countries (Turkey, Egypt, etc.).

Key indicators of project return on investment are given in Table 2.

### Table 2. The project ROI and technical and economic indicators (financial indicators are stated in prices and conditions valid for 2016)

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Alternative 1</th>
<th>Alternative 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total construction expenses incurred by investors, billion dollars.</td>
<td>9.2</td>
<td>22</td>
</tr>
<tr>
<td>The ship deadweight passage volume, thousand tons.</td>
<td>10</td>
<td>20-26</td>
</tr>
<tr>
<td>Payback period, years</td>
<td>11</td>
<td>25</td>
</tr>
<tr>
<td>Accepted ship passage costs, dollars per ton of cargo</td>
<td>20</td>
<td>20</td>
</tr>
</tbody>
</table>

Source: [2]

The indicators given for the Alternative 1 have higher investment attractiveness, since this option has a payback period of 11 years. This period is rather attractive, since when calculating large-scale and heavily invested infrastructure projects, the payback period of 20 years is normally considered acceptable. In this regard, the 9-year payback saving testifies to the Eurasia Canal project feasibility and potential effectiveness justifying high interest in it by many states.

An additional aspect of the project efficiency is the research on grain transportation, since grain products are currently in high demand and of a special concern for importing countries.

With that said, Russia is the largest agricultural product exporter. According to the results of the last agricultural season (June 2021 - June 2022), Russian grain was exported to 109 countries throughout the world. The export volumes to some countries that can receive grain through the Eurasia Canal (as canal will be located in the or near the Russia’s main areas of wheat production) are shown in Figure 2.

It can be seen that Turkey is among the major partners in purchasing grains from Russia. Turkey processes these products and distributes them to the African, Asian countries and other regions across the world. At the same time, Russian grain exports to other countries will increase significantly with regards to the Eurasia Canal transport opportunities.
Regarding the tariff, it should be noted that with its growth to $25 US per ton of cargo revenues will dynamically increase, which impacts export growth. The cost of $20 per ton for the ship passage is assumed to be equal to approximately half of the transportation costs along a similar oil route on the oil pipeline of the Caspian Pipeline Consortium ($38 US per ton of oil) [2].

4. SOME NATURAL INDICATORS OF THE SCOPE OF WORK IN CONSTRUCTING THE EURASIA CANAL

The project implementation is accompanied by a change in the previously defined indicators, both up and down, since the volume of materials used is to be adjusted with regards to weather conditions and landscape peculiarities [9]. In addition, the pre-planned indicators of the construction work scope and potential costs can be changed. But the estimated cost is essentially required since it helps managing investments, determining the approximate payback volumes and periods, and return on investments. With that said, an important indicator is the scope of work on constructing the established number of locks, the calculation of which is shown in Figure 3:

![Figure 3](image)

**Figure 3.** Scope of work for the creation and maintenance of sea canals along the route of the Eurasia Canal (option for vessels with a carrying capacity of 20-26 thousand tons, million m3)

*Source:* compiled by the author

The analysis shows that costs are mainly related to the costs for concrete and other materials used in the canal construction. In general, a large amount of building materials will be required, the cost of which depends on the season, the choice of a supplier and a set of other factors. Next, the scope of work on the Eurasia Canal maintenance should be determined to be considered in calculating investment indicators and planning costs for the project construction (Table 3).
### Table 3. Scope of work during the construction of locks (8 pieces, option for ships with a carrying capacity of 20-26 thousand tons)

<table>
<thead>
<tr>
<th>Types of work</th>
<th>Unit of measurement</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excavation</td>
<td>Thousand cubic meters</td>
<td>16419.2</td>
</tr>
<tr>
<td>Embankment and backfilling</td>
<td>Thousand cubic meters</td>
<td>6230.4</td>
</tr>
<tr>
<td>Fastening of the bottom, slopes of the approach canal:</td>
<td>Thousand cubic meters</td>
<td></td>
</tr>
<tr>
<td>Monolithic reinforced concrete slabs:</td>
<td>Thousand cubic meters</td>
<td></td>
</tr>
<tr>
<td>Crushed stone dumping</td>
<td>Thousand cubic meters</td>
<td>36,8</td>
</tr>
<tr>
<td>Outline of the stone</td>
<td>Thousand cubic meters</td>
<td>12</td>
</tr>
<tr>
<td>Precast concrete</td>
<td>Thousand cubic meters</td>
<td>3,2</td>
</tr>
<tr>
<td>Sheet pile</td>
<td>Tons</td>
<td>9840</td>
</tr>
<tr>
<td>Monolithic reinforced concrete Concrete</td>
<td>Thousand cubic meters</td>
<td>1184</td>
</tr>
<tr>
<td>Armature</td>
<td>Tons</td>
<td>128160</td>
</tr>
<tr>
<td>Metal structures and equipment</td>
<td>Tons</td>
<td>49776</td>
</tr>
</tbody>
</table>

**Source:** compiled by the author

**Figure 4** shows the data on earthworks in relation to the shipping route length and the scope of work.

**Figure 4.** Excavation volumes along the proposed Eurasia Canal route (option for vessels with a carrying capacity of 20-26 thousand tons)

**Source:** compiled by the author

As part of updating the data on the Eurasia Canal project, we note that for the fourth quarter of 2020, the cost of building and launching a navigable route, determined in compliance with the main provisions of the “Methodology for determining the cost of construction products on the territory of the Russian Federation”,

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**Table 3** is presented in a tabular format with columns for types of work, unit of measurement, and quantity. The table details various aspects of the work involved in the construction of locks, including excavation, embankment, backfilling, and other specific tasks. The data is sourced from the author's compilation.

**Figure 4** is a chart that visually represents the excavation volumes along the proposed Eurasia Canal route, with a focus on the relationship between the shipping route length and the scope of work. The chart includes data for various earthworks, such as excavation, embankment, and waterproofing volumes. The source of the data is credited to the author.

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**Figure 4:** The chart illustrates the excavation volumes along the proposed Eurasia Canal route, highlighting the significance of the work involved. The data is presented in a clear and concise manner, allowing for easy interpretation of the construction efforts required for the project.
amounted to about 737 billion rubles for the option shipping route for ships with a carrying capacity of about 10 thousand tons and about 1.821 trillion rubles for the shipping route option for ships with a carrying capacity of more than 20 thousand tons. Since the fourth quarter of 2021, the methodology for determining the estimated cost of construction has been significantly changed (the use of different coefficients for the cost of wages and the operation of machinery and mechanisms has been expanded), however, in accordance with inflation rates determined by the Central Bank of Russia from October 2020 to January 2023, these figures can be amounted to about 915 billion rubles and 2.261 trillion rubles at the beginning of 2023, respectively. In US dollar prices, taking into account the official exchange rates of the Central Bank of Russia, the US dollar against the ruble as of October 1, 2020 and January 1, 2023, amounted to about 9.357 and 13.009 billion US dollars, respectively, for the shipping route option for vessels with a carrying capacity of about 10 thousand tons and about 23.120 and 32.139 billion US dollars, respectively, for the option of the Eurasia Canal project for vessels with a carrying capacity of more than 20 thousand tons.

5. IDEAS AND CONCLUSIONS ON THE RESEARCH FINDING FOR THE EURASIA CANAL CONSTRUCTION PROJECT

In general, the implemented Eurasia Canal construction project will combine significant geo-economic interests of Russia, Kazakhstan, the Central Asian countries, and China with their business partners (including future ones) from the Mediterranean basin and Eastern and Central Europe. The Eurasia Canal operation will increase revenues to federal, regional and local authority budgets, due to which the standard of living will be improved in Kalmykia, Stavropol Territory, Rostov Region and other constituent entities of the Russian Federation. For example, with the accepted project cost of 2 trillion rubles, regional and local authority budgets will annually gain about 40 billion rubles as total property taxes (depreciation of the Eurasia Canal value can be estimated at about 1.5% per year). When the project achieves profitability, regional and local authority budgets will increase social and other expenses due to an increase in tax volumes. Along with that, tax volumes will be increased from manufacturing businesses, which will expand their operation due to a broader access of their products to the markets of European and Mediterranean countries.

For Russia, the Eurasia Canal will imply a certain increase in international power in the context of the strengthened economic ties with China, Kazakhstan, the Central Asian countries, as well as the countries of Eastern Europe and the Mediterranean basin. It can be assumed that even under the unprecedented sanctions pressure imposed by the countries of the collective West, Russia can put some efforts and succeed in assembling a syndicate of international investors capable to financially and technically implement this large-scale project, with Russia remaining as the majority stake-holder.

Undoubtedly, with the Eurasia Canal operational, Kazakhstan will get a boost to its socio-economic development as a country transiting Chinese-European goods and industrial and agricultural product supplier. As a result, the role of Kazakhstan in the international economic relations will increase significantly. For example, if the cost of delivering a standard container from Alashankou to Aktau is 2.7 thousand US dollars (the amount may change depending on market conditions), and assuming 25 million tons of the Chinese export cargo to be delivered by rail and assuming that one standard container contains 20 tons of net cargo, railway national companies in Kazakhstan (Kazakhstan Temir Joly) would earn about 3.375 billion US dollars per year. With an increase in the number of containers delivered along the Alashankou - Aktau route, transportation costs could be reduced, but anyway after the Eurasia Canal construction is completed, the economy of Kazakhstan will gain billions of dollars annually just from Chinese transit alone.

Water transport enables shipping all types of goods, including those that are non-feasible or unprofitable to transport through the pipeline. Notably, this is a significant factor that will determine the long-term role of the Eurasia Canal in the transition of the Caspian region states economies from the crude oil export model to a model focused on the oil product exports.

Northwest and Central China will be able to significantly increase exports to the European Union and the countries of the Mediterranean basin, besides of that their transit role in China-Europe trade would be increased.

New transport corridors in the Caspian Sea will have additional development opportunities, with all Caspian
countries benefiting.

The main risks in the Eurasia Canal construction, are somewhat associated with the possible technically poor construction of waterworks and other construction facilities, and the corresponding environmental risks (here, to avoid insinuations, we note again that the Southern Scientific Center of the Russian Academy of Sciences notes the general elaboration of the environmental aspect of the construction of the Eurasia Canal project as a well implemented). Oil and oil product transportation through the direct fairway route of the Eurasia Canal will be much safer than the potential transportation of oil and oil products through the winding and complex fairway of the Volga and Don rivers. This is more obvious due to the risk of moving through the difficult natural fairway, large cities with their water supply systems located along the route with the corresponding water intakes, difficulties in elimination of oil spills in natural reservoirs with their arms and vulnerable flora and fauna.

Reasonably, there is a commercial risk in a potential insufficiency of the transported goods volume to ensure the financial payback of the project, which should be considered at the project launch. In this regard, it is rather reasonable to attract large core businesses from cargo shipper countries (for example, from China, Kazakhstan, other countries) to participate in the project. The engagement of these corporations will allow to critically assess the commercial risks of the project and attract additional financial resources to the Russian economy.

An additional group of risks, such as force majeure, including terrorist attacks and other military threats, is not considered in this article. But it should be noted that nuclear power plants, oil pipelines, ports and other critical infrastructure in the relevant area are adequately protected and successfully operating.

A literature review showed that in 2010 the Russian Government was very close to agree on the Eurasia Canal construction [1;10]. If a decision to build the Eurasia Canal had been made in 2010, a new transport corridor (referred to in some newspaper articles as the Transeuroasian Transport Corridor) would have every chance of being launched in 2014-2017. This would strengthen economic ties between Russia, China, Kazakhstan and other Central Asian countries, would change the exports of the South of Russia and Kazakhstan towards non-primary goods, and would enable greater transport and economic integration of the above countries among themselves. However, the time required to implement the Eurasia Canal project remains undetermined. News reports on the Russia plans to open new transport corridors in the Caspian region and the further strengthening of Russian-Chinese economic cooperation in the coming years suggest that the next time window for the opportunity to make a positive decision on the Eurasia Canal construction will come very soon.

The presented arguments make it possible to analyze the project from a geopolitical perspective, which is systematized in Table 4.

<table>
<thead>
<tr>
<th>Project member countries</th>
<th>Benefits for a country</th>
<th>Project risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Russia</td>
<td>Strengthening economic ties with China, Kazakhstan and Central Asian countries, diversification of non-primary goods exports from the South of Russia. Several (2.5-4) billion USD annually for traffic on the Canal. Generating a large number of new jobs in industrial and service enterprises. Additional macroeconomic annual nominal GDP totaling to about 5 billion USD and about 12.5 billion USD of GDP at PPP in prices of 2022.</td>
<td>Poor technical hydrosystem and construction facility design and associated environmental risks. Potentially low volume of transported goods. Force majeure, including terrorist attacks and other threats.</td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>Strengthening ties with Russia, China and other countries. Generating a large number of new jobs in</td>
<td>Potentially low volume of transported goods. Force majeure, including</td>
</tr>
</tbody>
</table>
industrial and service enterprises. Railroad transit revenue growth (about 3.375 billion USD per year)

China Increasing exports to the European Union and the countries of the Mediterranean basin, strengthening the national role of Northeast and Central China as a transit country in China-Europe trade. Potentially low volume of transported goods

Force majeure, including terrorist attacks and other threats

Source: Compiled by the author

A diagram of the route of the Eurasia Canal is shown in Figure 5. Thus, the analysis proves the prospects of the project and its economic potential. In addition, under the current sanctions, the Eurasia Canal is an alternative logistics route that allows Russia to maintain and diversify its export potential, which strengthens the country's geopolitical position in the international arena and enables refocusing its economic cooperation from the European continent to the Asian market and the Eastern countries.

![Figure 5. Schematic map of the proposed route and the longitudinal profile of the Eurasia Canal](source)

Source: [2]

**CONCLUSION**

The presented project suggests the possibility to conclude that it has critical potential for international trade development between the countries of the Caspian region, Central Asia and China. The countries will have the opportunity to cooperate through this route, which is in the line with the PRC's One Belt, One Road strategic initiative. This project could contribute to developing the plans for cooperation between Russia, China, Kazakhstan, and other Central Asia countries on building new transport routes through the Central Asia and Caspian Sea, which will generally solve many logistical problems faced by the mentioned countries. The need for the Eurasia Canal will only increase, since international relations become more tense globally. Using the vessels with a carrying capacity of 20-26 thousand tons is more relevant today. The project cost
is approximately $32 billion, as of January 2023. The investment and economic analysis made it possible to conclude that the project is quite feasible in the coming years. The introduction feasibility is determined by the growing freight volumes tending to need the Eurasia Canal route.

REFERENCES


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